## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Patent Application of: | | | Date: January 19, 2010 | | |
| Applicant | : | John W. SUSSMEIER et al. | Attorney Docket | : | F-802 |
| Application No. | : | 10/803,636 | Customer No. | : | 00919 |
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| Examiner | : | Prone, J. | Group Art Unit | : | 3724 |
| Title | : | SYSTEM AND METHOD FOR PROVIDING SHEETS TO AN INSERTER SYSTEM USING A HIGH SPEED CUTTER AND RIGHT ANGLE TURN | | | |

Commissioner for Patents
P.O. Box 1450
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Sir:

## APPEAL BRIEF UNDER 37 C.F.R. § 41.37

In support of the Notice of Appeal filed October 19, 2009, and pursuant to 37 C.F.R. § 41.37, Appellants present this brief. The period for submitting this brief has been extended one month to January 19, 2010, by an extension of time fee filed herewith.

This is an appeal of the rejection of claims 1, 4-8, 11, and 12 set forth in the final Office Action having a notification date of July 21, 2009.

If any additional fees are required or if the payment provided is insufficient, Appellants request that the required fees be charged to Deposit Account No. 16-1885.

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## I. Real Party in Interest

The real party in interest in this appeal is Pitney Bowes Inc., a Delaware corporation, the assignee of the entire right, title, and interest in this application.

## II. Related Appeals and Interferences

There are no related appeals or interferences, of which Appellants, Appellants' legal representative, or Assignees are aware, that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

## III. Status of Claims

Claims 1, 4-8, 11, and 12 are pending. Claims 2, 3, 9, and 10 have been canceled.

Claims 1, 4-8, 11, and 12 are rejected. Appellants hereby appeal the rejection of claims 1, 4-8, 11, and 12.

The claims on appeal are set forth in the Claims Appendix in Section VIII.

## IV. Status of Amendments

No amendments under 37 C.F.R. § 1.116 have been filed.

## V. Summary of Claimed Subject Matter

The invention, as recited in claim 1, is directed to an inserter input system comprising:

a web feeder (*See* web feeder 10 in Fig. 1 and page 2, lines 15-17) providing a web of printed material (*See* web 100 in Fig. 2 and page 9, line 3), the web feeder feeding the web in a first direction;

a web slitting device (*See* cutting device 11 in Fig. 2 and page 9, lines 5-12) splitting the web along the first direction into at least two portions;

one or more sensors for scanning a code on the web (*See* sensors 12, 13 in Fig. 2 and page 9, lines 13-20), the code indicating a number of sheets for respective collations, the one or more sensors further providing a position indication of the sheets in the inserter input system;

a transverse web cutter (*See* rotary cutter 21 in Fig. 2 and page 10, lines 1-8) cutting the portions of split web transverse to the first direction while the web is transported through the web cutter to form side-by-side individual sheets (*See* sheets 1 and 2 in Fig. 2), the individual sheets having a width in the transverse direction and a length in the first direction, the web cutter cutting sheets at a cutting rate;

a right angle turn mechanism (*See* right angle turn device 30 in Fig. 2 and page 10, line 18 through page 11, line 6) downstream of the web cutter whereby the individual sheets are rearranged to be one on top of the other in a shingled arrangement, the right angle turn mechanism comprising a portion of a right angle turn transport (*See* right angle turn transport 37 in Fig. 2 and page 11, lines 17-23)

transporting individual sheets at a first velocity, the first velocity being a function of the cutting rate multiplied by the width of the individual sheets (*See* page 18, line 1 through page 19, line 6);

a high speed separation transport (*See* high speed separation nip 34 in Figs. 2 and 3 and page 12, lines 14-19) downstream of the right angle turn transport and pulling individual shingled sheets out from the shingled arrangement and whereby sheets are thereafter transported serially and separated by a predetermined gap, wherein the high speed separation transport has a second velocity that is a function of the cutting rate multiplied by a sum of the length of the individual sheets and the predetermined gap; and

a controller (*See* controller 14 in Fig. 2 and page 14, lines 10-17) coupled to the one or more sensors, the controller adjusting the cutting rate as a function of the number of sheets in a collation arriving at the high speed separation transport, whereby a lower number of sheets in the collation corresponds to decreasing the cutting rate, and a greater number of sheets in the collation corresponds to increasing the cutting rate.

The invention, as recited in claim 8, is directed to a method for generating sheets from a continuous web for creating mail pieces, the method comprising:

feeding the continuous web in a first direction (*See* page 9, lines 3-5);

splitting the continuous web along the first direction into at least two portions (*See* page 9, lines 5-12), the at least two portions each having a document width;

scanning a code on the web, the code indicating a number of sheets for respective collations (*See* page 9, lines 13-15);

sensing a position of the sheets and providing a position indication of the sheets (*See* page 9, lines 16-20);

cutting the portions of split web transverse to the first direction (*See* page 10, lines 1-8) at a cutting rate to form side-by-side individual sheets, the individual sheets each having a document length;

adjusting the cutting rate as a function of the number of sheets in a respective collation, whereby a lower number of sheets in the collation corresponds to decreasing the cutting rate, and a greater number of sheets in the collation corresponds to increasing the first velocity;

transporting the individual sheets at a first velocity (*See* page 11, lines 17-23) and turning the side-by-side sheets at a right angle whereby the individual sheets are rearranged to be one on top of the other in a shingled arrangement (*See* page 10, line 18 through page 11, line 6), the first velocity being a function of the cutting rate multiplied by the document width (*See* page 18, line 1 through page 19, line 6); and

pulling individual shingled sheets out from the shingled arrangement at a second velocity whereby sheets are thereafter transported serially and separated by a predetermined gap, wherein the second velocity is a function of the cutting rate multiplied by a sum of the document length and the predetermined gap (*See* page 12, lines 14-19).

## VI. Grounds of Rejection to be Reviewed on Appeal

In the Office Action, claims 1, 4-9, 11, and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,443,447 to Ifkovits et al. in view of U.S. Patent No. 5,439,208 to Moser et al., further in view of U.S. Patent No. 5,896,797 to Thompson, and further in view of U.S. Patent No. 4,073,208 to Muller et al.

Appellants note that claim 9 was canceled by an Amendment filed December 24, 2008, thereby rendering the rejection moot with respect to that claim.

## VII. Argument

### A. Claims 1, 4-8, 11, and 12 are patentable over Ifkovits in view of Moser, further in view of Thompson, and further in view of Muller

Because Ifkovits, Moser, Thompson, and Muller fail to teach or suggest Appellants' claimed combination recited in independent claims 1 and 8, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

#### 1. Ifkovits

As acknowledged in the Office Action at page 4, Ifkovits fails to teach or suggest a "controller coupled to the one or more sensors, the controller adjusting the cutting rate as a function of the number of sheets in a collation arriving at the high speed separation transport, whereby a lower number of sheets in the collation corresponds to decreasing the cutting rate, and a greater number of sheets in the collation corresponds to increasing the cutting rate," as recited in claim 1 and the corresponding features of claim 8.

#### 2. Moser

Moser, cited in the Office Action for its teaching of a high speed separation transport downstream of the right angle turn, is completely silent as to the "controller coupled to the one or more sensors, the controller adjusting the cutting rate as a function of the number of sheets in a collation arriving at the high speed separation transport, whereby a lower number of sheets in the collation corresponds to decreasing the cutting rate, and a greater number of sheets in the collation corresponds to

increasing the cutting rate," recited in claim 1 and the corresponding features of claim 8. Thus, Moser fails to overcome the above-noted deficiencies of Ifkovits.

Because the combined teachings of Ifkovits and Moser fail to teach or suggest Appellants' claimed combination recited in independent claims 1 and 8, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

**3. Thompson**

As discussed above, claims 1 and 8 are patentable over Ifkovits and Moser. Because Thompson fails to overcome the above-noted deficiencies of Ifkovits and Moser, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be withdrawn.

Thompson teaches a "method and apparatus for processing a strip of paper into two streams of cut sheets and for collating the streams." Thompson at col. 1, lines 8-10. In the device of Thompson, a "pair of marks 30 are formed adjacent each line of weakening 11," which "can function as timing marks, can be detected by a sensor 31 which is utilized to monitor the location in on processing equipment of each sheet or page 19, 20 in strip 10, or can perform any other desired function." Id. at col. 4, lines 6-11. The sensors 33, 34 of Thompson "monitor marks on strip 10, monitor the speed of travel of strip 10, monitor openings along the edge of strip 10, or monitor any other desired movement or information pertaining to the processing of strip 10." Id. at col. 4, lines 35-38.

According to Thompson, cutting a "page 38 longer is desirable when page 38 is the beginning or last page in a document." Id. at col. 4, lines 59-60. Moreover, the

"[s]ensors 33 and 34 or other data input means also indicates to microprocessor 36 when a page 37, 38 comprises the first, last, or only page in one of the documents imprinted or formed on strip 10" and "if a sheet 38 on strip 25 comprises the last sheet in a document, then microprocessor 36" operates to "permit the sheet 38 to more quickly pass into and through cutter blade assembly 56." Id. at col. 5, lines 1-21. In such a case, the "length L2 of sheet 38 will be slightly greater than the length L1 of sheet 37." Id. at lines 31-33.

Thus, the device of Thompson speeds up the last sheet in a document as it passes through the cutter so that sheet will be longer than the rest of the sheets in the document.

Thompson fails to teach or suggest a "controller adjusting the cutting rate as a function of the number of sheets in a collation arriving at the high speed separation transport, whereby a lower number of sheets in the collation corresponds to decreasing the cutting rate, and a greater number of sheets in the collation corresponds to increasing the cutting rate," as recited in claim 1 and corresponding features of claim 8. In fact, Thompson fails to teach or suggest **any** control of the cutting rate of cutter 28. Rather, as discussed above, Thompson teaches changing the transport speed of the web to adjust a cut length of specific pages. Thus, Thompson fails to overcome the above-noted deficiencies of Ifkovits and Moser.

Because the combined teachings of Ifkovits, Moser, and Thompson fail to teach or suggest Appellants' claimed combination recited in independent claims 1 and 8, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

**4. Muller**

As discussed above, claims 1 and 8 are patentable over Ifkovits, Moser, and Thompson. Because Muller fails to overcome the above-noted deficiencies of Ifkovits, Moser, and Thompson, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be withdrawn.

Muller teaches an "apparatus for the production of sausage links of equal length and equal weight in a common sausage casing with the individual links being separated from one another by twisted portions of the sausage casing." Muller at col. 1, lines 14-18. According to Muller, an object of the invention is "to make it possible to separate links of the continuous sausage chain thereof individually or in groups from one another." Id. at col. 2, lines 27-31.

The device of Muller comprises a "plurality of cam disks" that are "longitudinally shiftable on the drive shaft to which they are keyed." Id. at col. 3, lines 45-48. By varying the position of the cams, the "sausage chain is cut through between every fourth sausage link" or alternatively the "links are severed individually." Id. at lines 54-58.

Thus, in Muller, the cutting rate is not based on the number of output sausages, as asserted in the Office Action. Rather, using the disclosed cam arrangement, the device of Muller merely cuts at desired intervals and, in fact, **refrains from cutting** when a group of sausage links is desired. By teaching selectively refraining from cutting, Muller **teaches away** from the claimed combination, in which a transverse web cutter cuts the "portions of split web transverse to the first direction while the web is transported through the web cutter to form side-by-side individual sheets" and in which

the controller adjusts the "cutting rate as a function of the number of sheets in a collation."

Accordingly, Muller fails to teach or suggest a "controller adjusting the cutting rate as a function of the number of sheets in a collation arriving at the high speed separation transport, whereby a lower number of sheets in the collation corresponds to decreasing the cutting rate, and a greater number of sheets in the collation corresponds to increasing the cutting rate," as recited in claim 1 and corresponding features of claim 8. Thus, Muller fails to overcome the above-noted deficiencies of Ifkovits, Moser, and Thompson.

Because the combined teachings of Ifkovits, Moser, Thompson, and Muller fail to teach or suggest Appellants' claimed combination recited in independent claims 1 and 8, Appellants respectfully submit that a prima facie case of obviousness has not been established and that the rejection should be reversed.

**B. Conclusion**

For the reasons set forth above, Appellants respectfully submit that independent claims 1 and 8 are patentable over the references applied in the Office Action. Claims 4-7, 11, and 12 depend directly or indirectly from claims 1 and 8 and therefore should be allowable for at least the same reasons the claims from which they depend are allowable. Accordingly, Appellants respectfully request reversal of the claim rejection and allowance of the pending claims.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 16-1885.

Respectfully submitted,

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## VIII. Claims Appendix

1. An inserter input system comprising:

a web feeder providing a web of printed material, the web feeder feeding the web in a first direction;

a web slitting device splitting the web along the first direction into at least two portions;

one or more sensors for scanning a code on the web, the code indicating a number of sheets for respective collations, the one or more sensors further providing a position indication of the sheets in the inserter input system;

a transverse web cutter cutting the portions of split web transverse to the first direction while the web is transported through the web cutter to form side-by-side individual sheets, the individual sheets having a width in the transverse direction and a length in the first direction, the web cutter cutting sheets at a cutting rate;

a right angle turn mechanism downstream of the web cutter whereby the individual sheets are rearranged to be one on top of the other in a shingled arrangement, the right angle turn mechanism comprising a portion of a right angle turn transport transporting individual sheets at a first velocity, the first velocity being a function of the cutting rate multiplied by the width of the individual sheets;

a high speed separation transport downstream of the right angle turn transport and pulling individual shingled sheets out from the shingled arrangement and whereby sheets are thereafter transported serially and separated by a predetermined gap, wherein the high speed separation transport has a second velocity that is a function of

the cutting rate multiplied by a sum of the length of the individual sheets and the predetermined gap; and

a controller coupled to the one or more sensors, the controller adjusting the cutting rate as a function of the number of sheets in a collation arriving at the high speed separation transport, whereby a lower number of sheets in the collation corresponds to decreasing the cutting rate, and a greater number of sheets in the collation corresponds to increasing the cutting rate.

4. The inserter system of claim 1, wherein the right angle turn mechanism comprises parallel forty five degree turning bars further comprising a first turning bar forming an inner paper path having a first turning path length, and a second turning bar forming an outer paper path having second turning path length, the second turning path length being longer than the first turning path length.

5. The inserter system of claim 4 wherein the first and second turning bars are spaced apart as a function of the individual sheet length such that the shingling arrangement comprises the sheets transported on the inner paper path being positioned at the bottom of the shingling arrangement and sheets transported on the outer paper path being positioned on the top of the shingling arrangement.

6. The inserter system of claim 1, wherein the right angle turn transport is controlled to decelerate to a stop and hold sheets upon an occurrence of a downstream stopping condition.

7. The inserter system of claim 1, wherein the transverse web cutter is a rotary cutter.

8. A method for generating sheets from a continuous web for creating mail pieces, the method comprising:

feeding the continuous web in a first direction;

splitting the continuous web along the first direction into at least two portions, the at least two portions each having a document width;

scanning a code on the web, the code indicating a number of sheets for respective collations;

sensing a position of the sheets and providing a position indication of the sheets;

cutting the portions of split web transverse to the first direction at a cutting rate to form side-by-side individual sheets, the individual sheets each having a document length;

adjusting the cutting rate as a function of the number of sheets in a respective collation, whereby a lower number of sheets in the collation corresponds to decreasing the cutting rate, and a greater number of sheets in the collation corresponds to increasing the first velocity;

transporting the individual sheets at a first velocity and turning the side-by-side sheets at a right angle whereby the individual sheets are rearranged to be one on top of the other in a shingled arrangement, the first velocity being a function of the cutting rate multiplied by the document width; and

pulling individual shingled sheets out from the shingled arrangement at a second velocity whereby sheets are thereafter transported serially and separated by a predetermined gap, wherein the second velocity is a function of the cutting rate multiplied by a sum of the document length and the predetermined gap.

11. The method of claim 8, wherein the step of transverse cutting is carried out using a rotary cutter device.

12. The method of claim 8 wherein the continuous web is comprised of printed material.

## IX. Evidence Appendix

None.

## X. Related Proceedings Appendix

None.